THE

AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

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THE AMERICAN PRACTITIONER.

OCTOBER, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—Ruskin.

Original Communications.

ADDRESS IN OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.*

BY THEOPHILUS PARVIN, M. D.

In making *Uterine Hemorrhage* my subject I trust the spirit, though not the letter, of the law instituting these addresses will be fulfilled. The letter of that law demands a chronicle, an abstract of all the discoveries and advances that have been made during the twelve months immediately preceding in the three departments of practical medicine which this section includes. But in addition to the inherent difficulties of such a labor—collection, connection, and condensation—evolving completeness and harmony from isolated, sometimes apparent, sometimes discordant facts, making of these *disjecta membra* a living unity, such as uttered words should be, even were its performance possible by me, it would be a most uncongenial work, and its attempt an unwarrantable assumption of your ignorance of current medical literature.

Delivered before the American Medical Association, in June, 1874.
 Vol., X.—13

In considering the subject announced, a subject which at once includes the two major and naturally connected departments of the section, some of the most important therapeutic questions now occupying the professional mind will necessarily be presented.

Regarded in its anatomical relation, uterine hemorrhage may be divided into interstitial, peritoneal, and mucous.

Hemorrhage into the tissues of the uterus, as a rule, according to Klob,* occurs only in aged females, while Dr. Graily Hewitt† speaks of it as an occasional event in parturition. Cruveilhier,‡ under the title of apoplexy of the uterus, describes it fully, making three divisions of it, according to the muscular layers affected, its cause generally being degeneration of the arteries, while the hemorrhage to which Dr. Hewitt refers is properly an ecchymosis. In certain dyscrasiæ too hemorrhage into the substance of the uterus may occur, and this independent of the arterial degeneration mentioned, or of violence. But this variety of hemorrhage is of interest only to the pathologist, and we pass on to the second, peritoneal.

Three forms of peritoneal uterine hemorrhage will be at once conceded; viz., traumatic and two consequent upon inflammation, the one an immediate, the other a remote result. Mentioning the first is sufficient, for the cause is obvious, and the consequence frequently demonstrated.

Acute inflammation may cause hemorrhage. Dr. Barnes remarks, § "Whatever produces hyperæmia predisposes to hemorrhage; thus inflammation takes a high rank as a cause of hemorrhage." And Dr. Druitt, in his article upon inflammation, observes, || "There is no severe inflammation which may not be attended with hemorrhage." Hence inflammatory congestion of the pelvic peritoneum, that which invests

^{*} Pathological Anatomy of the Female Sexual Organs.
† Transactions of the London Obstetrical Society, vol. ix.
‡ Anatomie Pathologique.

§ Diseases of Women.

^{||} Cooper's Surgical Dictionary.

the uterus included, may thus directly cause hemorrhage. Virchow (Pathology of Tumors) remarks that in consequence of inflammatory processes in the pelvic cavity there results a pathological vascularization, and extravasation may occur from the false membranes of retro-uterine peritonitis. In this we have an illustration of the process by which hemorrhage is the remote consequence of inflammation. Further, Desprez,* explaining the way in which hemorrhages may occur after inflammation of serous membranes, remarks that under a renewal of the inflammatory process the neomembranous formations soften, and the newly-formed vessels, thus losing their supporting investment, either ulcerate or otherwise are unable to resist the interior pressure of the blood.

Furthermore, can we recognize as actual or possible an acute exhalation of blood from the pelvic peritoneum, as some of the observations of Voisin would seem to show, though such an origin of uterine hematocele is regarded by Bernutz† as altogether problematical? Knowing how many and how various, so far as structure and function are concerned, the tissues and organs that are the avenues for vicarious menstruation, there does not seem any antecedent improbability in the supposition that the pelvic serous membrane, and especially its uterine portion, might be such an avenue.

Still more, connected with the suggestion just made as to a possible cause of uterine hematocele, may not such an effusion have its origin in malarial poisoning? Certainly a case under my observation a few months since seemed to have such poisoning as a factor—I will not say the factor—in its production. If uterine hematocele may be caused by lumbo-abdominal neuralgia, ‡ as a recent observer has shown,

^{*} Nouveau Dictionnaire de Médicine et de Chirurgie Pratiques, vol. xvii.

[†] Nouveau Dictionnaire; article, "Hematocele."

¹ Archives Générales, July, 1873.

how much more probable the cause I have, suggested, while the explanation of its action is quite as obvious.

But whatever the source of the hemorrhage, the quantity in the vast majority of cases is in no wise perilous, and generally the function of the physician is limited to the control of the resulting peritonitis, which in the encystment of the effusion accomplishes a beneficent purpose; but, not attaining this end, may be quickly mortal.

The third variety of *uterine hemorrhage*, which for convenience has been designated *mucous*, is vastly the most frequent, the most important, and the most complex as to etiology and therapeutics.

The monthly congestion to which the uterus is subject, and which terminates in hemorrhage from the ruptured vessels of its mucous lining—physiological hemorrhage—is a powerful predisposing cause of pathological hemorrhage.

In the study of the causes of the latter we may conveniently consider them under three headings—traumatic, dyscrasic, and congestive, or mechanical.

The unimpregnated uterus is little exposed to direct accidental traumatism.* Guarded by walls of bone, and these walls rendered a still better protection by muscular and other investment on either side, still other defense is found for this organ in its interposition between the bladder and rectum, which in their varying states of distension are greater or less hinderance to exterior injury; and besides, the elastic supports of the uterus—firm enough to hold it in normal position, lax enough to accommodate the varying condition as to repletion or vacuity of neighboring organs—ordinarily secure its exemption from injury in blows or shocks or falls the body may receive. Hence it is almost invariably the case, when

^{*&}quot;La nature semble avoir épuisé ses ressources pour mettre l'uterus à l'abri du traumatisme."—Genése et Etiologie du Hémorrhagies Uterines, by Dr. J. Bougon, Paris, 1873.

the uterus does receive such violence as suggested, the injury done it is minor in comparison with that done to those structures intervening for its protection.

Dr. Bougon has mentioned physiological traumatism as a cause of uterine hemorrhage. But really when coition—for this is referred to—produces such results the uterus is excessively congested, as at the commencement of menstruation, or from disease, or from dislocation, or there may be ulceration, etc., or there is a chlorosis or other blood disorder, which, not only from a deteriorated quality of the blood, but from weakened walls of the vessels, facilitates hemorrhage, and the cause first mentioned is but one of the factors in its production. And still further, when excessive coition is followed by metrorrhagia, the latter is to be attributed oftener to vaso-motor paralysis than to traumatism.

Intentional traumatisms are not unfrequently causes of uterine hemorrhage; e. g., leeching the cervix, the application of caustics, uterine catheterism, incising the cervix; various other operations, such as removal of tumors, amputation of the neck, etc. Nevertheless, in regard to some of the causes, their action is not direct; thus, cauterizing the uterine neck or cavity may cause hemorrhage purely by reflex action, while others are not isolated and independent in their action; e. g., leeching the cervix is not ordinarily followed by excessive flow of blood, but such flow may then ensue if there be hepatic congestion; and Dr. Bennet,* illustrating the relation between such congestion and uterine, remarks that these were the only cases he had observed where leeching caused "an almost uncontrollable hemorrhage." Exploration of the uterine cavity with a sound, if a cause of hemorrhage, simply furnishes the evidence of disease.

Dividing a strictured cervix is not always an innocent operation, even when done by the most skillful. Nor are incisions in the cervix, advised in certain cases of uterine

^{*} Uterine Inflammation.

inversion, and first performed by Dr. Robert Barnes,* exempt from the peril of hemorrhage, as the case narrated by Dr. Thomas illustrates.† Dr. Barnes advises two incisions, one on each side of the os, and speaks of having made them "about one third of an inch deep." Courty directs one anteriorly and one posteriorly, or three equidistant; a practice that is probably safer, considering the arrangement of the blood-vessels of the uterus, than the lateral incisions of Dr. Barnes. So too the propriety of incisions "about one third of an inch deep" may be at least doubted when we remember that the thickness ‡ of the cervical wall in the virgin is rather less than half an inch, and would not in a case of chronic inversion greatly exceed this measurement.

Operations upon the cervix in case of pregnancy may be followed, as would be readily suggested, by more than ordinary hemorrhage, and may cause abortion or premature labor. Nevertheless the rule is not absolute; a polypus that has caused little or no bleeding may be removed, with the probability that no considerable hemorrhage will follow, and that gestation will not be at all disturbed.

While mentioning this topic let me refer for a moment to a very interesting monograph by Massot, entitled "The Influence of Traumatisms upon Pregnancy." In it the author has collected two hundred and fourteen cases of injuries occurring to, or of surgical operations performed upon, pregnant women; some of these injuries or operations involving the uterus or contiguous organs; some of them of a most serious character, such as severe contusions and fractures,

^{*}In his memoir in the Medico-Chirurgical Transactions, 1869, Dr. Barnes remarks, "For twenty years I have taught in my lectures that the unyielding cervix may be divided by incisions carried into its substance from above downward at different points of its circumference. Pressure then applied will cause it to yield more easily. Hugnier, Professor Simpson, and Dr. Marion Sims have suggested the same plan." This plan was first executed by him in 1868.

[†] Diseases of Women (third edition), p. 430.

[‡] Savage on the Female Pelvic Organs. See also remarks of Dr. Savage, London Obstetrical Society's Transactions, vol. vii, p. 141.

ovariotomies, amputations, ligation of large arteries, etc.; and his conclusion from an analysis of these cases is that traumatisms do not interfere with gestation, except those that materially or for a length of time disturb the uterine circulation or call into action uterine muscular contractility.

Both of our eminent countrymen, Sims and Atlee, have performed ovariotomy in pregnancy without gestation being interrupted, and Spencer Wells* has had four successful cases in similar circumstances; so that the rule which Gallez † gives, that pregnancy constitutes an absolute contra-indication to ovariotomy, since the operation invariably causes abortion, is too positive. It would astonish good old Mauriceau could he waken from his more than two centuries of quiet sleep and witness one of these great operators perform ovariotomy; ‡ perform it upon a pregnant woman, and she live and complete her gestation, when he had already thus discoursed upon a cause of abortion: "A great Noise"—I am quoting from Hugh Chamberlen's Translation, published in London in 1727-"suddenly and unexpectedly heard may make some women miscarry, as the Noise of a Cannon, and chiefly thunderclaps; and yet more easily, if to this Noise be added the Fear they usually have of such Things, which happen rather to the young than elderly Women; because, their Bodies being more tender and transpirable, the Air, which is strongly forced by that Noise, being introduced into all her Pores, offers a great Violence by its Impulsion on the Womb, and on the Child within it; which the elder, being more robust, thicker, and closer, resist with more Ease."

^{*}London Obstetrical Society's Transactions, vol. xiii, p. 281.

[†] Histoires des Kystes de l'Ovaire, etc. Brussels, 1873.

[†] Very possibly the old accoucheur would, with one of his countrymen of the present day, put such operation in the domain of chirurgie terrible. Joulin, in his Gazette Obstetrique Gynecologie, April, 1873, uses the following language: "Il y trente ans on ne connaissait que deux sortes de chirurgies; la grande et la petite. Depuis quelques années on a vu surgir une classe d'operations nouvelles que, en raison de la hardiesse des opérateurs et de l'effrayante étendue du traumatisme, on pourrait intituler: la chirurgie terrible."

Returning from this digression, in the ninth volume of the London Obstetrical Society's Transactions Dr. Graily Hewitt has reported a case of fatal hemorrhage from an extraordinary cause; to wit, traumatic aneurism of the uterine artery.

The traumatisms that occur in abortion or in parturition may be sources of hemorrhage. Van Swieten first compared the recently-delivered woman to one having undergone an important amputation; the late Sir James Simpson expanded this idea in the analogies he pointed out between surgical and puerperal fever; while Pajot speaks of the detachment of the placenta producing "a physiological wound." Not only in this case there may be, but from premature detachment of the placenta, either accidental or necessary, there must be hemorrhage more or less grave.

After parturition hemorrhage is prevented by what has been termed the retractility—as distinguished from the contractility - of the uterus, a property which does not inhere equally in all parts of the organ, and which Dr. Dewees taught belonged especially to the inner of the three layers into which anatomists have divided its muscular structure; but which, as Dr. Chantreuil * asserts, is rather to be attributed to the middle coat, which is thicker at the fundus, the usual placental site; thus explaining the fact that a greater hardness is detected by the hand applied over it after parturition than by the finger applied near the os; and also the fact that there is a greater liability to post-partum hemorrhage whenever the attachment of the placenta has been otherwhere than that mentioned as the normal one. Now whatever hinders this retractility, retention of placenta, or clots, inertia, etc., is the cause of hemorrhage.

Hydatiform degeneration of the placenta has no more constant symptom than hemorrhage. Post-puerperal hemorrhage is most frequently caused, as pointed out by Joulin,† by the weak condition of the blood-vessels prior to the com-

^{*}Du Application de l'Histologie à l'Obstetrique.

plete regeneration of the mucous membrane that has been cast off. The epithelial layer which should protect these vessels is not visible until about the ninth day after delivery, and is not completely restored until the twenty-fifth day, or even later. Of course, any unusual exertion, straining, or lifting, even being on the feet too soon or too long, may under such circumstances be the exciting cause of the flow; and it is obvious the first, possibly the only, therapeutic measure required will be *rest*.

Other forms of traumatic hemorrhage are found in ruptures of varices of the cervix, or of the cervix itself, or of the body of the uterus, and in injuries inflicted in attempts at criminal abortion. But with this brief allusion I pass on to refer for a moment to *dyscrasic* hemorrhages.

In hæmophilia, according to Lebert and Tardieu, there is an important alteration in the blood; and while this disease is more frequent in the male than in the female—seven to one—it may occur in the latter under the form of uterine hemorrhage. Even the first sexual congress has caused a mortal flow of blood. A fatal case of metrorrhagia in purpura has been recorded by Barton.* So too in scorbutus, in chlorosis, in lead-poisoning, etc., hemorrhage from the uterus has been observed; and Bernutz has directed attention to metrorrhagia as frequently occurring in syphilitic women when under mercurial influence.

Now in these and similar cases it is not the altered condition of the blood that is the direct factor in the production of the hemorrhage. This red river of life that bears nutriment to every part of the organism is constantly washing away its banks, and, if it bring no suitable material for their repair, the weakened conduits readily rupture under any unusual pressure of their contents. Gubler † has collected

^{*} Edinburgh Monthly Journal, 1841.

[†] Des Epistaxes Uterines simulant les Regles. Gubler's collection of cases might well have contained the following from Sydenham: "Not long ago a very virtuous and noble lady was committed to my care who had the dangerous black

a number of cases to show that very many metrorrhagias, regarded as anticipated menstruations at the commencement and in the progress of acute maladies, are simple uterine fluxes, similar to the initial epistaxis of fevers, and he designates them uterine epistaxes. The facility of the occurrence and the abundance of the flow are in relation to the intensity of the disease, with the predominance of determination to the hypogastric organs, with the tendency toward a dissolved condition of the blood and the ramollissement of the tissues, whence the hemorrhagic diathesis proceeds; and Raciborski* speaks of disposition to uterine hemorrhages being inherent in eruptive fevers.

Uterine congestion resulting in hemorrhage may be active or passive; either too much arterial blood is thrown into the womb or venous return is hindered. The immediate cause may be in the organ itself; some disorder of position or of structure, or in an organ contiguous or remote.

Disease of the heart (especially of the mitral valve), of the liver, abdominal tumors, etc., may be causes of metrorrhagia. Tilt † has directed attention to the relation between ovaritis and menorrhagia; and Gallard ‡ states that the latter is the most frequent menstrual disorder induced by this disease. Uterine inflammation is a frequent cause of hemorrhage, but it is when this inflammation is mucous, not parenchymatous; for amenorrhæa results from the latter, especially when it has continued for a length of time, the hyperplasia of the connective tissue terminating in sclerosis. In two thirds of the cases of cancer of the uterus, according to Louis, the

small-pox; and though at the beginning I forbid all those things that might exagitate the blood, yet she being of a very sanguine complexion and brisk and young, the season of the year being very hot, she was seized of a sudden on the third day after the eruption with so large a flux of the courses at an unusual time that the women that were by thought she miscarried; but though this symptom continued violent for many days," etc. (Of the Irregular Small-pox in the Years 1670, '71, '72.)

^{*} Traité de la Menstruation. † Uterine and Ovarian Inflammation. † Lecons Cliniques sur les Maladies des Femmes.

first indication of the disease is hemorrhage. Uterine tuberculosis also causes hemorrhage. Pelvic peritonitis, especially that variety of it designated menstrual, according to Bernutz, causes menorrhagia. Various uterine displacements cause hemorrhage, but I have not time to dwell upon their mutual relation.

To only two other local causes of uterine hemorrhage—to wit, uterine polypi and fibroids—shall I refer. How do uterine polypi cause hemorrhage? is a question to which very different responses have been given. Klob* remarks that these growths are often exceedingly vascular, and very small ones may give rise to fatal hemorrhage. He teaches that the hemorrhage is from the polypus. Gooch held the same view, stating that as soon as a ligature was applied to the pedicle the flow of blood ceased. The teaching of Barnes is similar as to the source of the blood.

On the other hand, Boivin and Duges assert that the vessels of the polypus are too small to furnish so much blood; that it comes from the uterine sinuses. In their work too this important fact has been noted—a fact which, I believe, has been neglected by recent authors—that the nearer a polypus is to the fundus the greater the hemorrhages; but these diminish with the elongation of the pedicle and the descent of the tumor.

McClintock† states that, notwithstanding the hemorrhage almost invariably ceases upon the strangulation of the tumor, there is good reason for thinking that the blood comes, in great part at all events, directly from the interior of the uterus. The polypus, as an irritant, is a source of uterine hyperæmia, often a hyperæmia followed by inflammation, as shown by new adhesions between the tumor and the womb—secondary pediculization—which, I believe, are not unseldom found.

The fact that Gooch alleges as a conclusive proof that

^{*} Op. cit.

the hemorrhage is from the polypus—viz., tying the pedicle stops the flow—is not without occasional exceptions; and besides, it is susceptible of this explanation: the ligature destroys the vitality of the growth; that vitality which invited thitherward, not only to itself but to the uterus, an increased flow of blood.

It is not surprising that the hyperæmic condition of the uterus induced by a polypus should be relieved by attacks of metrorrhagia.

Fibroids, submucous or interstitial, cause hemorrhage by the increased quantity of blood they invite to the uterus, by the altered condition induced thereby in its lining membrane, and by the hinderance which their direct pressure causes, or that of the uterine distortion or displacement they have induced, to venous return.

In briefly considering the therapeutics of uterine hemorrhage the third variety of this disorder only will be referred to.

While it is true that metrorrhagia is a symptom, and that with the removal of the cause this effect ceases, yet very often direct means must be promptly used to stop the flow of blood; otherwise, while limiting our efforts to the removal of its cause, the patient will die.

It is important to recognize and avail ourselves of the preventive treatment. Physiological and mechanical rest, for example, for the uterus disposed to bleed excessively at a monthly period are all-important. Physiological rest likewise should be insisted upon for this organ when the seat of cancerous disease. So too the more general use of the electro-cautery in uterine surgery,* as a substitute for knife or scissors, is to be considered an important advance in no respect more valuable than in the prevention of hemorrhage. A bloodless surgery is alike less perilous and less terrifying to the patient.

^{*} See Clinical Notes on the Electric Cautery in Uterine Surgery, by J. Byrne, M. D. William Wood & Co., New York, 1873.

In obstetricy we may prevent the hemorrhage which otherwise might ensue from placental retention by securing prompt delivery of the placenta—a prompt delivery before the os has contracted, hindering its extrusion; a prompt delivery in the later months or at the full term of pregnancy—by the method known as Credé's, and in earlier months ordinarily by keeping the os well dilated with two fingers of one hand, then hooking them over the placenta, as Mauriceau has quaintly expressed it, like "a crab's claw," while with the other hand upon the hypogastrium the uterus is pressed down upon the fingers.

But hemorrhage once established, how is it to be arrested? I confess to no faith in astringents internally administered for this disorder. After rest, position, and cold, I believe the most valuable of uterine hæmostatics are quinia and ergot; the former chiefly in what has been termed atonic menorrhagia, the latter in the metrorrhagia consequent upon fibroids. In order that benefit shall result from quinia it ought to be given in doses of at least from four to six grains every three hours, until the patient is decidedly under the peculiar nervous influence of the remedy, or until the flow is materially lessened. The action of quinia under these circumstances is no proof of this agent having a special influence upon the uterus, for it has also been used successfully in other hemorrhages; e. g., hæmoptysis.

The anti-hemorrhagic application of ergot in obstetric practice I omit; and indeed only one of those in the treatment of uterine hemorrhage occurring unrelated to the puerperal condition will be referred to. The hemorrhage in submucous and interstitial fibroids has been arrested by freely incising the os uteri; a plan alike proposed by Baker Brown, Nélaton, and McClintock. A similar result will sometimes follow dilatation with sponge-tents, or from intra-uterine injections of tincture of iodine and water, as advised by Dr. Savage, or of solution of iron salts. Ergot administered by the mouth has long been recognized too as of great value in such

circumstances; but its hypodermic use, as advised by Hildebrandt, is far more satisfactory, and is one of the most important therapeutic applications in recent years. Not many years ago Dr. Robert Fergusson, adopting the language of Dupuytren, declared all these tumors "inoperable." Twentytwo years ago an eminent member * of this association-one of the great ovariotomists, not only of this country but of the age-demonstrated that they were operable, a demonstration which has been further strengthened by the recent brilliant operations of Dr. Sims.† However, operations are not possible in all these cases—nay, not in the majority while the hemorrhage the growths cause is the great peril. That peril is best prevented by hypodermic ergot. In 1869 Langenbeck had shown the benefit of ergot thus used in two cases of aneurism; and two or three years ago Hildebrandt published the extraordinary results he had obtained in uterine fibroids by a similar use of ergot. Since that time numerous reports have appeared in medical journals, both at home and abroad, in the main confirming the deduction of his experience; an experience which has been enlarged since his first publication, but not changed, as will be seen by a note from him published in the last number of the American Journal of Obstetrics. As advised by Dr. Squibb, the best form of ergot for hypodermic use is obtained by first properly evaporating the fluid extract to a solid, and dissolving this product in water in such proportion that one minim of the solution shall be equivalent to one grain of ergot. In my own practice I have used an injection of fifteen to twenty minims daily, and it is exceptional when there is not a diminution of the growth or growths within a week. Charles Hunter, in his article upon subcutaneous injections, in the recent edition of Cooper's Surgical Dictionary, asserts this rule: "All fluids should have such a strength that five minims should contain or exceed the medium dose;" a rule

^{*}Dr. Atlee. † New York Medical Journal, April, 1874.

that is utterly needless and impossible to follow in this case.

Not only is there a diminution in the uterine enlargement in the majority of cases from hypodermic ergot, but, pari passu, a marked diminution in the hemorrhage. This plan of treating these growths meets better than any other the course Cruveilhier advised, and which he properly termed traitement atrophique.

Astringent injections into the uterus for the arrest of postpartum hemorrhage have recently been the subject of earnest and not always unimpassioned discussions, especially when the injection of a solution of perchloride of iron has been the topic, a treatment of which Dr. Barnes has been the great advocate, though not the originator. Cold-water injections into the uterus have been favorably spoken of by many of the older obstetricians; but Guillon * was the first, I believe, to employ an astringent injection. In 1825 a decoction of oak-bark was successfully used by him in hemorrhage from inertia; and nearly thirty years ago some English practitioners † made use of tannin injections for a similar purpose and with like success. In a note from Dr. Fave. Professor of Midwifery in the University of Christiana, published in the May number of the Obstetrical Journal of Great Britain and Ireland, it appears that the use of perchloride of iron in post-partum hemorrhage is justly due to the late Professor d'Outrepont, of Wurzburg, who used it in the same manner as it is now used, and wrote about it thirty years ago. Dr. Barnes, in his third Lettsomian lecture, published in the Lancet, October 10, 1857, remarks, "I suggested some time ago the injection of sesquichloride of iron;" and refers to the fact that Dr. Schrier, of Hamburg, had related, in 1855, some instances in which this agent had been employed with And in a discussion in the London Obstetrical Society, in 1869, Dr. Rogers stated that he had used such

^{*} Archives Générales.

[†] Lancet, August, 1846.

injections for fifteen years; while Dr. Hall Davis said that he had made use of pernitrate, persulphate, and perchloride of iron for several years, and had found them equally efficacious. So much for the historical portion.

That these injections have a wonderful degree of certainty in speedily arresting post-partum hemorrhage no one considering the cases adduced can doubt. But are they always safe? Now no number of successful cases, be it hundreds or thousands, will invalidate a single case where a fatal result has obviously followed such injection. I know that the advocates of this treatment claim that death was not caused by the injection; and yet I can not see how any unprejudiced physician can read the reports of the case of Dr. Heywood Smith and that of Dr. Bantock without being almost if not quite convinced that this was the cause of death.

Certainly such injections should not be used without obeying the instructions of their great advocate as to the strength of the solution, as to having the uterus completely empty of all clots and oval fragments, and as to having the os patent; nor, it may be added, are such injections advisable in secondary puerperal hemorrhage.

Joulin,* apropos to this topic, advises employing all possible means before resorting to so dangerous an agent; and most of us can adopt the language of Dr. Savage,† asserting that we "have never met with a case of immediate postpartum hemorrhage rebellious to the old-fashioned practice."

The subject of transfusion, more especially in puerperal hemorrhage, is just now attracting considerable professional attention. Mauriceau taught, "When a woman, new-laid, has flooding, and there be no piece of the burden or false conception or clot in the uterus, bleed the woman in the arm, not so much thereby to empty the fullness as to make diversion;" but modern therapeutics proposes to open a vein in the arm not to abstract but to impart blood.

^{*} Gazette de Joulin, April, 1873.

[†] Obstetrical Transactions, vol. xv.

A venerable friend in the profession, who has accomplished more than half a century of active labor, recently remarked that he had passed through two epidemics of electricity, and was now in the third, which he hoped to survive. The third epidemic of transfusion is now visiting us, the first being in the seventeenth century, and both of the others in the nine-teenth.

Transfusion * is the translation of the blood of one animal into the circulation of another; but a similar introduction of salines, alcoholic fluids, or medicinal substances is *infusion*.

Dr. Ullersperger † asserts that "the idea and theory of transfusion, etc., appertain by full right to Magnus Pegel (1503-1604); that the operation was first performed on the hounds of the captain of cavalry, George de Wahrendorf, by a huntsman, who injected Spanish wine; that about 1538 it was proposed for man by the theologian Potter, who apprised several members of the Philosophical Society of it; and that the engineer, Christopher Wren, at Oxford, constructed the machinery which appeared to him most suitable, and afterward performed it on a dog." Dr. Aveling t states that Dr. Lower first performed transfusion in England in 1665, making a communication by quills between the carotid artery of one dog and the jugular vein of another; and in November, 1667, the same physician, in conjunction with Dr. King, transfused the blood of a sheep into a man, the latter submitting to the operation for one guinea. John Denys, however, of France, preceded Dr. Lower and Dr. King, performing the operation either in June, 1667, or else in 1666, authorities differing as to the date. He successfully transfused in five cases, using the blood of calves or of lambs, entertaining extravagant notions as to the value of the operation; but finally one of his patients,

^{*} Definition given by Dr. Barnes in Cooper's Surgical Dictionary.

[†] Prize Essay. Transactions of the Pennsylvania State Medical Society, 1867. It will be observed that in the historical statement given by Dr. U. the first operation was not transfusion at all, but infusion.

t British Obstetrical Journal, August, 1873.

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a lunatic, upon whom he had thrice performed transfusion, died a few hours after being operated on the last time, really poisoned by his wife in all probability; but the opposition was so bitter,* and the excitement so great in consequence of this death, that Parliament decreed that any one performing the operation without the proposition having been made to, received, and approved by the Faculty of Medicine should be imprisoned; and thus a stop was put to transfusion in France for nearly two centuries.

A revival of interest in the subject of transfusion took place, at least in England, through the experiments and writings of Dr. Blundell,† about the middle of the first half of this century. He was the author of the *mediate* in contradistinction to the *immediate* method, which had been the sole one used for one hundred and sixty years, although asserting that "in performing transfusion there can, I conceive, be no doubt but that the blood ought to be transmitted by tubule merely when this method is practicable." Among Dr. Blundell's experiments were bleeding a dog to syncope and then restoring him by transfusion, and nourishing another

^{*} It is curious to notice in the history of transfusion and of infusion, both in France and elsewhere, the severity of censure on the one hand and the extravagance of praise on the other. It was alleged that "a man who had received the blood of an inferior animal in his veins becomes dull and loses his wit, and despoils himself of his proper inclinations and puts on those of that beast;" and moreover, from this use of sheep's blood, wool would grow on his body! On the other hand, "an old dog, on receiving a quantity of blood from a young one, did leap and frisk, whereas he was almost blind with age and could hardly stir before;" a dog whose history deserves to be retained in medical literature quite as well as that of the venerable horse (see Dr. Barker's paper on Transfusion, New York Medical Record, April 1, 1874) that immediately after transfusion got up and ate grass! Antony Nuck, 1692, mentioned delirium, mania, leprosy, syphilis, and cancer among the diseases for which transfusion was used. But the most extraordinary statement comes from a physician, 1716, as to the value of infusion. He had thereby not only cured his patients of various diseases, epilepsy among the number, but likewise himself of intermittent fever and of the itch! And yet this physician's name was not Ananias, but Parmannus! The statements of a doctor who is willing to take his own medicine, and who will acknowledge having the itch, are worthy of implicit belief. † His "Physiological and Pathological Researches" were published in 1824.

dog for three weeks similarly; the first eleven days the transfusion was mediate, the rest of the time immediate. February 17, 1825, his first case of human transfusion occurred. The operation was done for puerperal hemorrhage, and was successful, although but four ounces of blood were used. Dr. Blundell's theory was that from half a pint to a pint of blood would be advisable; and he has remarked, in reference to post-partum hemorrhage, that of twenty women thus suffering nineteen would recover under ordinary means, but the twentieth would die without transfusion. It is worthy of note that in the successful cases then occurring the quantity transfused was often, if not always, very small. Thus two cases are reported in the Lancet, 1835, in one of which three ounces and in the other two ounces only of blood were used; facts which led the opponents of the measure to allege that the operation was useless, recovery taking place post hoc instead of propter hoc, and its advocates to state that the new blood acted as a stimulant to the heart. When we remember, according to Piorry, that one tenth of the weight may be lost by hemorrhage without a fatal result, while, according to Burdach, a loss of from one ninth to one fifth is instantly mortal, it does seem somewhat marvelous that two ounces of blood will, upon the theory of its supplying the loss, save life.

In 1826 and in 1828 transfusion was twice successfully performed. In each case the hemorrhage succeeded abortion. In the first four ounces of blood were used, but in the second fifteen ounces.

Dr. O'Shaugnessy first advised the injection into the veins of saline solutions or infusions in cholera. Dr. Latta, of Edinburgh, first put the suggestion into practice, and in fifteen cases of cholera collapse had five recoveries. So too infusion has been successfully performed in puerperal fever by Dr. Taylor Smith, and in poisoning by aconite by Dr. Richardson.

Coagulation of the blood has been one of the difficulties in transfusion, and various methods have been resorted to to obviate this, among others the application of heat; but recently it has been shown by the experiments of Richardson and others that heat promotes coagulation. In 1834 Dr. Schultze recommended the intestine of a dog or calf, cutting it into pieces eight or ten inches long, tying one end of each piece, and thus making sacs into which the blood was received, and from which it could be taken by the transfusion syringe; his assertion being that blood could thus be kept in contact with an animal membrane for two or three hours without coagulation. Defibrination of the blood has been resorted to in many of the cases.

Where one of the inferior animals is made the blood-donor the transfusion is usually immediate, and made from artery to vein. So too transfusion where a human being is the donor may be immediate—from vein to vein—and the simplest instrument for this has been devised by Dr. Aveling.* Mediate transfusion may be with pure blood or with defibrinated blood. The apparatus of Leiter may be used in either case, as well as in the second method mentioned.

Many questions as to the respective methods, as to the kind of blood,† as to the quantity, etc.; as whether there is advantage in the suggestion of Dr. Richardson, adding ammonia, or adding phosphate of soda, according to Dr. Hicks; as to whether indeed infusion—infusion of liquid nutriment—can take the place of transfusion; what instruments are the best, etc.; are yet to be settled. But behind them all lies the question as to the utility of transfusion. Cazeaux gave but little credit to the operation when he wrote of its having been highly praised in England, where it seems to have succeeded several times; and Jacquemier went so far as to

^{*}Both Dr. Aveling's instrument and that of Leiter were exhibited at the meeting of the section.

[†] Dr. Austin Flint, jr., in his remarks on Dr. Barker's paper (New York Medical Record, April 1, 1874), speaks unequivocally in favor of human blood.

suggest that the reported successes simply proved that the operation could be performed without danger, and indicated his belief that it would soon fall into oblivion.

But with so many facts in favor of transfusion, and these accumulating—in favor of it especially in puerperal hemorrhage *—it is worthy the careful investigation of every obstetrician, if not making it his duty to provide himself with the necessary instruments for the operation. In fifty-eight cases collected by Prof. E. Martin, cases dying from uterine hemorrhage, transfusion saved forty-six. The statistics of Dr. Drinkard† gave eighty-nine cases and fifty-six recoveries. Doubtless, if all the cases occurring up to the present time were collected, there would be twice or thrice as many.

In view of these facts we can, with Saboia, ‡ express a regret that transfusion occupies a doubtful place in obstetric art, or adopt the language of Leishman: § "Professional attention has of late years been so thoroughly awakened to the importance of this procedure that there exists in the minds of many experienced practitioners a strong hope and some confidence that obstetric mortality may in this way be in some measure reduced."

It certainly will be one of the noblest triumphs of our divine art when by an operation so rational, so simple, so speedy as transfusion we can rescue woman just when she has passed through the profound sorrow of parturition—just when she is entering upon the supreme joy of maternity—from otherwise inevitable death.

* As far as I have been able to ascertain there has been in this country no successful case of transfusion for purperal hemorrhage.

† Richmond and Louisville Medical Journal, January, 1872. Dr. Drinkard has tabulated one hundred and seventy cases of transfusion, but the number above refers only to those in which the operation was done for puerperal hemorrhage.

† Traité des Accouchements, Paris, 1873.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

The American Pharmaceutical Association began its twenty-second annual session in this city, on September 9th, with an attendance of sixty-nine members, including all the officers except one of the vice-presidents. The association was organized for the transaction of business, in 1852, with a membership of nine. It has steadily increased in members, and now has nearly eleven hundred.

The aim of the association has been to unite the educated and reputable pharmaceutists and druggists of the United States in the objects enumerated below:

- To improve and regulate the drug market by preventing the importation of inferior, adulterated, or deteriorated drugs, and by detecting and exposing home adulteration.
- To encourage proper relations between druggists, pharmaceutists, physicians, and the people at large, which shall promote the public welfare and tend to mutual strength and advantage.
- 3. To improve the science and art of pharmacy by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutical literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business.
- 4. To regulate the system of apprenticeship and employment, so as to prevent as far as practicable the evils flowing from deficient training in the responsible duties of preparing, dispensing, and selling medicines.
- To suppress empiricism, and to restrict the dispensing and sale of medicines to regularly-educated druggists and apothecaries.

6. To uphold standards of authority in the education, theory, and practice of pharmacy.

7. To create and maintain a standard of professional honesty equal to the amount of professional knowledge of the association, with a view to the highest good and greatest protection to the public.

The association was called to order by the president, Mr. John F. Hancock, of Baltimore; and Mr. John M. Maisch, of Philadelphia, permanent secretary, assumed the duties of his office.

The first session was mainly occupied by the examination of the credentials of the delegates from the various pharmaceutical organizations represented, and closed with the reading of the president's address, an elaborate essay, containing many valuable suggestions. It was referred to a committee, with instructions to report such portions of the address as they might determine for future action of the association.

The following officers were elected for the ensuing year: President—C. Lewis Diehl, Louisville. Vice-presidents—Joseph Roberts, Baltimore; Wm. T. Wenzell, San Francisco; Aug. R. Bailey, Boston. Treasurer—Chas. A. Tufts, Dover, N. H. Reporter on Progress of Pharmacy—C. Lewis Diehl, Louisville. Secretary—Prof. John M. Maisch, Philadelphia.

The report of the Committee on Adulteration and Sophistication of Drugs was submitted by the chairman, Chas. Rice, and adopted and referred for publication. We append a few interesting extracts from this report:

"It should be the aim of this association to stand guard over the quality of all substances relating to pharmacy, and to seek out and denounce all frauds. To do this properly a committee should not only gather all information obtainable from others, but should direct especial attention to some prominent staple articles, obtaining samples at various places, and carefully examining or analyzing them.

"To represent the actual state of the market samples should be purchased anonymously by confidential and discreet agents, appointed for certain districts, say one for each state, who could send samples to said committee for examination.

"This plan is no doubt susceptible of improvement; but if it were carried out, it would in the course of time develop a central bureau for the detection of adulterations, and result in the establishment of a museum, with all the facilities and appliances for conducting the necessary experiments. Thus would be secured to our people a portion of the benefits which England derives from its 'adulteration act.'

"The report is divided into, first, crude drugs and commercial products; second, chemicals and pharmaceutical preparations; and third, miscellaneous substances. We shall, however, notice but few articles under the above captions.

"CRUDE DRUGS AND COMMERCIAL PRODUCTS.

"Balsam of Fir.—Under the name 'Oregon Balsam of Fir' an oleo-resin has during the last year appeared in commerce. Prof. Maisch could not trace this drug beyond New York. It is a thick, transparent, bright-brown liquid, of a turpentine and aromatic odor. On rubbing it between the fingers different odors become apparent, and last of all that of nutmegs. It is probably a solution of resin in oil of turpentine, flavored with the oil of eucalyptus globulus and the essential oil of nutmegs.

"Balsam of Peru.—Reference was also made to the Balsam of Peru as having been found adulterated with liquid storax.

"Dandelion.—Chiccory has been foisted upon the market as dandelion-root, and of that spurious article a so-called officinal fluid extract of dandelion had been prepared and sold for the genuine preparation.

"Ginger.—Attention was also called to samples of 'bleached ginger' (Jamaica ginger), which was found to be common or American ginger, white-washed, and dusted over with plaster of Paris.

"Infants' Powder.—What is commonly called 'infants' dusting powder' is often, instead of being the true lycopodium, nothing more than the pollen of the pine.

"Linseed-oil, as used for manufacturing printers' ink, has been found adulterated with cod-liver oil, previously made almost odorless.

"Olive-oil.—Much of the Italian olive-oil used for table purposes was said to be only fish-oil made at home.

"Rhubarb.—Reference was also made to rhubarb, of the common variety, being rubbed with turmeric to give it the fine light-yellow color of the Turkey species.

"CHEMICAL AND PHARMACEUTICAL PREPARATIONS.

"Acids.—In regard to the three mineral acids—nitric, muriatic, and sulphuric—the latter is the only one found generally pure. The impurities of the commercial acetic, citric, tartaric, and other acids were dwelt upon and clearly illustrated.

"Citrate of Magnesia.—The substitution, or at least admixture, of tartrate of soda is as common as ever. The necessity of accurate knowledge upon this and other matters, as insisted upon in England, was couched in an incident in the case of a druggist in Bermondsey, England, who, having a call for some granular citrate of magnesia, bought two pounds from a neighbor, and sold one fourth of a pound over the counter immediately. On analysis this was found to contain citric and tartaric acids, carbonate of soda, and sugar. His defense, that he sold it as he had bought it, and had had no time to analyze it, was of no avail, and he was accordingly fined ten pounds and costs.

"Cream of Tartar.—The usual impurities are still reported; among others, carbonate of magnesia, salt, and starch.

" MISCELLANEOUS SUBSTANCES.

"The British papers and journals are full of reports of trials, under the 'adulteration-of-food act,' for selling adulterated articles of consumption; such as tea, coffee, mustard, butter, flour, pepper, cocoa, jams, bread, etc.

"Butter.—This was found to be adulterated with lard, drippings, tallow, palm-oil, and oils or fats from certain seeds.

"Flour.—This great staple was found sometimes to contain alum, as much as ten grains in four pounds.

"Extract of Meat.—Mr. Thomas Williams found fifty grains of red lead in a can of South American extract, said can having been painted red to give it a more showy and salable appearance.

"Port Wine.—To detect spurious port wine add to a portion of it in a test-tube an equal volume of amylic alcohol, and shake. The upper layer will assume a more or less characteristic pink or purple color. Genuine port wine yields no color to fusel oil. The poisonous matters used to color wine may produce fatal effects."

The report of the Committee on Legislation was read by the chairman, Secretary Maisch. This was in reference to various laws passed by the legislatures of several states in regard to the regulation of pharmacy, which were reported to be succeeding well; this being especially the case in the states of Alabama, Kentucky, and Missouri.

It was resolved that a committee of three be appointed by the president to report at the next meeting upon the feasibility of the publication of a table of maximum doses, and to devise a plan by means of which physicians can distinctly indicate unusually large doses in their prescriptions.

An essay on granulated effervescent compounds was read by Mr. R. V. Mattison, of Philadelphia, which was referred to the chairman of Unofficinal Preparations, to be reported on at the next annual meeting.

The gist of this essay was that the granulated effervescing compounds representing the various mineral waters were more agreeable to the taste, and more speedy in effect on account of the concentration of the dose; for instance, a heaping teaspoonful of the granulated salts, representing a quart of Crab Orchard Springs water, would certainly be more convenient of administration, more pleasant, and certainly more speedy in its results. The essayist, however, gave no formulas for the preparation of these saline preparations, and it was accordingly referred to the committee as aforesaid.

Prof. J. Lawrence Smith, being present, was invited to address the association. This request was complied with by Prof. Smith, who, after dwelling upon the improvements in pharmacy, begged leave to suggest that a memorial fund be subscribed to by every pharmaceutical association in the land, in order to erect a monument to the memory of Liebig, the father of organic chemistry; a testimonial of the regard in which his life-long labors are held not only by the profession alone, but by every lover of science. Prof. Smith said he had been authorized to superintend the raising of the

American memorial fund. A motion was carried authorizing the appointment of a committee of three from this association to act in concert with the National Chemical Committee.

Query No. I was answered to the effect that American licorice was generally of standard purity and quality, and that any gum contained in it was extracted from the root.

Query No. 4 was replied to verbally by P. W. Bedford, New York, which was in reference to the impurities of the commercial sulphate of potassium. Sulphate of potassium of American commerce is, as a rule, pure, and particularly free from sodium salts.

Query No. 5.—What is cincho-quinine? was answered by Albert E. Ebert, of Chicago, who stated it to be simply cinchonia, probably precipitated from the commercial sulphate by an alkali or alkaline carbonate.

Query No. 8.—Powdered blue mass—What is an easy and convenient mode of preparing a mercurial powder to fully represent the officinal blue pill? Answered in an essay by John F. Hancock, Baltimore.

A lengthy and general discussion followed this, in which the idea of reducing mercury to any condition of dry powder was combated, inasmuch as mercury in this condition after a lapse of time would become oxidized, and corrosive sublimate be formed as the result of the chemical change. If kept too long, an ordinary dose of the original powder would produce poisonous effects. The majority seemed to be in favor of doing away with any formula prescribing mercury in the state of powder, and adhering to that relating to the composition of blue mass. In this latter preparation honey is added, and thus all danger of the formation of corrosive sublimate as the result of oxidation is avoided.

Query No. 19, concerning the advantages of making suppositories by molding over the method of making them by hand, was answered by Geo. W. Kennedy, of Pottsville, Pa. He reported in favor of making suppositories by hand, inas-

much as a more perfect shape could be imparted; whereas by the molding process the suppositories were too apt to cling to the molds, and have their shape interfered with.

Query No. 22.—Does water extract all the purgative principles of rhubarb, and is the alcoholic percolate of rhubarb after its exhaustion with water inert? Charles A. Heinitsh, Lancaster, Pa.

The author in his essay established that water does not extract all the purgative principles of rhubarb, an alcoholic extract prepared from the drug, which had previously been exhausted with water, retaining some activity.

Query No. 26.—There is a petroleum product called cosmoline, having claims to considerable merit. Can its claims be established by experience, and to what pharmaceutical uses can it be put? Answered by Joseph L. Lemberger, Lebanon, Pa.

From the nature of the essay one would be led to judge that this product of petroleum was destined to displace every article in the apothecary's shop, so many are the diseases which it has been instrumental in curing. There seems to be no question, however, that it is a very useful remedial agent in the cure of certain skin-diseases, and as a base for all the popular ointments. It gave rise to a lengthy discussion, in which paraffine came in for a share of the glory. This cosmoline from the time it leaves the well is introduced to no chemical agent. The process of obtaining it is a slow and careful distillation, though paraffine is ultimately added to bring it up to the regular medical standard. The precise method of its preparation is, however, still kept secret; and, notwithstanding the author has been permitted to inspect the works, he has been able to throw but little light on the subject. Dr. C. W. Miller has attempted to prepare it artificially, and has succeeded in obtaining a product very closely resembling it by the judicious treatment of certain grades of paraffine oils, and the addition thereto of some paraffine.

Such a product can be prepared at about one fourth the price asked for cosmoline, and Dr. M. will in all probability be enabled in a short time to publish a working process for its preparation. Its use will be probably restricted to substitute the fats used in some ointments, over which it possesses the advantage of not becoming rancid by age.

Query No. 17.—Why do some of the diluted phosphoric acids of the market form precipitates with tincture of chloride of iron, while others do not? Louis Dohme, of Baltimore, said, "The pharmacopæia gives two processes for the preparation of this acid, from glacial phosphoric acid of the market and from phosphorus direct. Dilute phosphoric acid made from phosphorus direct does not give a precipitate with tincture of chloride of iron, while that made from the glacial acid very frequently does, owing to the presence of pyrophosphoric acid. Mr. D. has not positively determined why some of the glacial acids are not readily and completely converted into the ordinary tartaric acid, but will continue his researches and report at the next annual meeting."

An essay on the antiquity of the apothecaries' craft and title, by Mr. J. Bartlett Patten, enlisted profound attention. We quote a few extracts:

"The very old and respectable term 'apothecary,' borrowed from the Greek, naturalized into English, and associated with the practice of medicine all along as a collector, confectioner, and dispenser of drugs, is so applicable, so convenient, and so endeared to our memories that, like the words 'Bible' and 'church,' none other should be found to take its place.

"The earliest mention of the word is by Moses (Exodus xxx, 34-37). It is true Moses did not write Greek, but the Hebrew word rakah (pronounced rakach) employed by him, a word which is commonly translated apothecary in the Greek version made by order of Ptolemy Philadelphus, one hundred and eighty-five years before the nativity of Christ, and in the first translation of the Septuagint into the English, by Sir C. L. Brenton, this word is rendered 'perfumer,' which office was and is one special department of the apothecary's calling, from the fact that in our author's

translation, and in the earlier English versions of the same scripture, the word *rakah* is rendered apothecary.

"It would seem that the business of the perfumer was not distinguished from that of an apothecary at the time of the translation. Thus Shakespeare, a contemporary of King James's translators, says, 'An ounce of civet, good apothecary, to sweeten my imagination.' In the life of Aristotle, who lived four hundred years before Christ, it is stated that he served some time in an herbalist or drug establishment at Athens. We know but little of the materia medica of those days, but it seems to have been almost entirely vegetable, which indeed was the case down to the time of Paracelsus, who introduced the medical use of mercury and several other minerals, together with a variety of elixirs.

"The first pharmacopæia on record was published in the year 49 B. C. In the golden and silver ages of the Roman Empire great advances were made in pharmacy, and some valuable points discovered, which are still retained in our modern pharmacopæias. Previous to the fourth century the apothecary and the physician were sometimes combined in one man, as in the case of the distinguished Galen, who kept a druggist's shop at Rome.

"It was not until the fourth century, however, that pharmacy became a distinct branch of medicine. With the decline and fall of the Roman Empire science and learning became nearly extinct in Western Europe, and as a result superstition and blind empiricism prevailed, and pharmacy made no progress. But in the East—particularly in Alexandria—chemistry and pharmacy were cultivated with assiduity, and the apothecaries were a numerous body, respected for their learning and high social position, under the protection and strict supervision of the government. The first renewal of medical science in the West after the dark ages was in Salerno, where arose a celebrated school in the eighth century, and from that time apothecaries began to be numerous throughout Europe.

"The first attempt to supersede the time-honored name of apothecary in the United States was made in the city of Philadelphia, in 1839, by Mr. Blair, who devised the name of 'pharmaceutist,' hitherto unknown to lexicographers, and displayed it at full length upon his sign. This excited much comment at the time among the pharmaceutical profession, who thought it somewhat pretentious, if not a positive compromise with quackery itself, while some of the rural non-professionals were absolutely deluded into the belief that the name over the door represented some imported wild animal that was on exhibition within. But all sorts of stories are too often told at the expense of an individual or a movement that seeks an advance upon time-honored precedents, and should be received therefore with many grains of allowance."

Mr. Ebert, of Chicago, in an elaborate essay, exposed the fraud "American opium." As compared with the imported article it was proved to be inefficacious, containing only a trace of the principles peculiar to the genuine article. The samples which were given to Profs. Proctor and Squibb were no doubt "salted," and consequently elicited an unwitting commendation from those eminent gentlemen, who did not suspect any attempt at fraud. On the strength of their recommendation many druggists were induced to purchase it, actuated by a desire to encourage home production as well as to save money.

Other members of the association testified to the truth of the foregoing statements.

Another fraud, in reference to the manufacture of the citrate of magnesia, was exposed.

After the discussion of many other interesting matters the association adjourned to meet in Boston in September, 1875.

[The foregoing report of the proceedings of the association, gathered from the Louisville morning newspapers, conveys but a very imperfect idea of the amount of work done during the meeting. The impression made upon all who attended the sessions of the association was that its membership consisted of earnest, active, intelligent, and cultivated men, who, animated by a common desire to advance and elevate their profession, went to work with a will. They certainly lost no time, nor were they much or long upon their feet. They went as straight for a "query" as when at home in their pharmacies they extemporize a formula or compound a prescription. They were pleasantly entertained by their brethren in Louis-

ville, one of whom was honored by being made president of the association for 1875. Professor J. Lawrence Smith, the distinguished scientist, received the association at his residence, where the time was spent most agreeably in examining his extensive collections in both art and science, and looking through his chemical laboratory. The proportion of repreresentative men in pharmacy present at this meeting of the association struck us as being particularly large. Among them we noticed Mr. Hancock, Mr. Dohme, and Prof. Moore, of Baltimore; Dr. Hoffmann, Mr. Neergard, and Prof. Bedford, of New York; Profs. Remington and Maisch, of Philadelphia; Mr. Ebert and Mr. Sargent, of Chicago; Mr. Baker, of Richmond, Va.; Mr. Lemberger, of Lebanon, Pa.; Prof. Judge, of Cincinnati; and many more whose names our space does not permit us to mention. The impression made by the association on the general public of Louisville was as favorable as could be. We have no doubt the same result will ensue wherever it shall hold its sessions.]

Reviews.

The Physiology of Man. By Austin Flint, Jr., M. D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, New York, etc. New York: D. Appleton & Co. 1874.

With this volume the elaborate treatise of Dr. Flint on human physiology is completed, and in this is given a full index of all the five volumes. In announcing the appearance of this final contribution to the work we are free to say that we feel proud of it as an American book. Dr. Flint has achieved a task which reflects credit upon the literature and science of his country. The fact that he has been engaged eleven years in its preparation is proof of the fidelity with which he has labored to make it a faithful reflex of the physiological science of our day; and a better summary of the facts pertaining to it, we conscientiously believe, is not to be found—certainly not in the English language.

Dr. Flint claims to have been a good deal more than a compiler in the preparation of his work. He has to a great extent, as he says, formed his opinions "from the results of direct observation and experiment," and is therefore to be regarded as a contributor to physiological science. In successive volumes he has enunciated original views, some of which at least must be admitted as established. This we conceive to be the case with regard to his theory of respiration, which function, he has shown in his first volume, is set up not by the stimulation of carbonic acid in the bloodvessels, but by a sense of the want of oxygen in the general system. This necessity is felt generally by the organism,

and gives rise to the first respiratory effort of the infant, as it excites the reflex movements by which respiration is maintained through life.

His views concerning a new excretory function of the liver, which he announced as early as 1862, and incorporated subsequently in his second volume, have recently been confirmed by the experiments of other physiologists. One great office of the liver, Dr. Flint conjectured, is to separate cholesterine from the blood, which being thus liberated is discharged with the fæces in the shape of stercorine; and the theory was supported by experiment as well as by clinical observations. The fact possesses great pathological importance, and explains some morbid phenomena connected with the liver. The retention of cholesterine in the blood, it was held by Dr. Flint, gave rise to a condition which he termed cholesteræmia; and this condition Dr. Koloman Müller has lately produced in dogs, with symptoms of "grave icterus," by injecting cholesterine into their veins.

Glycogenesis is another function claimed by Dr. Flint for the liver, and the correctness of this view is concurred in by numerous writers. The author thinks the discordant observations on this point may be reconciled by the fact that the sugar formed in the liver is washed out by the blood as fast as it is produced, and so may not be found, though the organ be examined even a few seconds after death.

Another conclusion which Dr. F. claims to have reached—namely, that muscular exertion largely increases the elimination of urea—has not been borne out by other observers, and may still be regarded as unsettled. The experiments by which he arrived at his conclusion are thought to have been altogether too limited in number and not sufficiently varied in character.

In the volume before us the author has given an account of the special senses and of generation as clear and satisfactory as could be presented in the space devoted to these difficult subjects. Of the chapters devoted to the special senses that on vision is the most complete, and will be found of great interest to all students of ophthalmology. The delicate subject of generation is handled with marked ability, and the whole work as it now stands forms a treatise on the physiology of man, which we introduce again to our readers as one which may be studied with profit and deep interest not only by medical men, but by all who desire to keep pace with the progress of natural science.

A Report of the Reduction of Two Cases of Chronic Inversion of the Uterus. By Prof. James P. White, M. D., of Buffalo, New York. Reprinted from the Transactions of the New York State Medical Society for 1874.

These are the eleventh and twelfth cases of chronic inversion of the uterus which Dr. White has succeeded in reducing.

In the first of these two cases the inversion had existed for twenty-two years, and reduction was accomplished it an hour and a half. In the second the inversion had occurred six years before, and reduction occupied two hours and ten minutes. A notable fact in regard to the latter case was that the tumor had been mistaken for a polypus, and an effort made to remove it with the *écraseur*, which was happily thwarted by the breaking of the wire, and then a more careful examination revealed the mistake. This took place a few weeks after the inversion occurred.

The peculiarities of Dr. White's method of operating are, after compressing the uterus with the hand, reducing its congestion and rendering it more pliable, and making gentle pressure in the line of the pelvic axis. He next introduces his *repositor*. This repositor consists of a stem of wood or hard rubber, about ten inches in length, slightly curved, one extremity of which is enlarged or cup-shaped and covered

with soft rubber, and made to fit the fundus uteri; the other extremity having attached to it a coil of steel spring-wire. against which the breast of the operator may be placed, who by leaning forward may exert a constant and gentle pressure upon the uterus, and thus relieve his other hand, with which he can facilitate the repositing by manipulating the upper end of the uterus, either through the abdominal wall or by passing a finger into the rectum. A continuous pressure of eight or ten pounds is exerted by the repositor, and at the same time compression made by the hand within the vagina upon the portion of the uterus protruding beyond the os, the same hand also retaining the fundus and repositor in proper relation. When the cervix has been thus dilated so as to embrace the body of the uterus a rectum-bougie is substituted for the repositor, and pressure made by it, and the reduction completed.

The value of Dr. White's method, so clearly demonstrated by his remarkable successes, will be generally recognized by the profession.

T. P.

Essays on Conservative Medicine and Kindred Topics.

By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, New York. Philadelphia: H. C. Lea. 1874.

This neat little volume is composed of a series of essays written by the author at different times for journals of medicine, or delivered before medical and other societies, and collected into this form at the request of his friends for more convenient reference. We are glad to meet with them in their present shape, and are sure the many readers to whom they are no strangers will be pleased to have them in a volume. The essays are devoted to conservative medicine, to medicine in the past and present, alimentation in disease, tolerance of

disease, the agency of mind in etiology, prophylaxis and therapeutics, and divine design as exemplified in the natural history of disease. With some of them our readers are already familiar; but they will bear more than one careful perusal. They are indeed papers to be studied. They evince an amount of sound sense and true philosophy gratifying to meet with in the discussion of medical subjects. We thank Dr. Flint and his publisher for the opportunity of again turning to these admirable papers in the tasteful and convenient form in which they are now given to the profession.

A Treatise on Food and Dietetics, Physiologically and Therapeutically considered. By F. W. Pavv, M. D., F. R. S., Fellow of the Royal College of Physicians.

The author of this treatise is favorably known to the profession by his work on digestion, which was republished in this country several years ago, and his reputation will be enhanced by the volume the title of which stands at the head of this article. It is all the more acceptable because it is the only systematic work on the subject which has appeared for a long time in the English language; but apart from this it possesses intrinsic merits, which will give it a high rank among the treatises which have been written on food and dietetics. It is at once scientific and practical. It exhibits the various topics discussed in the light of modern physiology, and as they stand related to the human system in health and disease.

Liebig gave a wonderful impulse to this discussion nearly forty years ago, and his views in regard to the various offices of food were for a long time almost implicitly accepted by the profession; but modern researches have shown that the philosophy of that great chemist requires some modification, though taken as a whole his teachings were singularly correct. He was in error, for example, in contending that nitrogenous food must first become organized in the animal system before it can take part in the combustive process. It has been shown that in the carnivora, and in races of men that subsist on animal food, the nitrogenous elements unite in part directly with oxygen, and so minister to their vital heat without becoming assimilated with their bodies and forming a part of their organization. And it has also been established that oleaginous food has a more multiplex office in the economy than that ascribed to it by Liebig. Not only is it concerned in the evolution of heat, as he pointed out so satisfactorily, but it is quite as efficient in the development of muscular force. As men are warmed by it in cold climates, so they have the power of laboring in all latitudes through the force liberated in its combustion. Heat and muscular power are correlative. The caloric which maintains life in cold regions of the earth becomes muscular force in laborers under a southern sun by means of the oxidation of fatty elements of food. And such elements are found equally indispensable under the different conditions, the negro on a Georgia plantation partaking of his fat middling with quite as keen a relish as the Esquimaux devours whale blubber in the arctic zone.

All this is set forth with great clearness by Dr. Pavy, whose chapters on this subject embody the latest doctrines concerning the physiology of food. He says, "As is the case with reference to heat, the amount of mechanical energy producible is in proportion to the amount of chemical action occurring. A given amount of an organic compound, for example, will, as is well known, by oxidation give rise to the generation of a definite and ascertainable amount of heat. In the same manner, when the energy set free is manifested under the form of a mechanical power instead of heat, a fixed amount of work is capable of being performed. The energy produced may present itself under the form of a certain amount

of heat, or, on the other hand, may lead to the accomplishment of a certain amount of work; not only so, but heat and mechanical power are known to be mutually convertible, and a definite expression can be given to their relative value in representative equivalents."

On the theor, that muscular fiber must be disintegrated and oxidized in men subsisting on lean animal food and in the carnivora, in order to the evolution of animal heat, there would be an excess of urea in the urine of persons after violent exercise; but it has been shown by numerous experiments that such is not the face. The nitrogen eliminated by the kidneys in the many observations in which it was examined formed no measure of the work performed, and it follows that muscular destruction is not a result of muscular work. Thus, in two men subjected to experiment by Dr. Parkes, the quantity of urinary nitrogen excreted was as great the days when they were at rest as those on which they took active exercise.

Liebig's conclusions as to the office of alcohol in the animal economy have also been subjected to a severe scrutiny, and are now conceded to have been too sweeping. Next to fat, Liebig placed alcohol in the scale of respiratory elements; but since he promulgated these views it has been discovered that alcohol when taken as a beverage passes off from the body in an unchanged state; and this has led to the belief with a great many physiologists that this fluid, so largely consumed by men, takes no part in the nutritive process. MM. Lallemand, Perrin, and Duvoy found that when only a moderate quantity had been ingested it was recognizable for many hours afterward, as well in the urine as in the pulmonary and cutaneous exhalations. It was even found untransformed in the brains of dogs as long as thirty-six hours after its ingestion; and similar results were obtained by Dr. Edward Smith, who asserts that he repeatedly detected alcohol in the breath four hours after an ounce and a half had been taken, or quite long enough for its transformation if such took place in the system.

Hence it has been concluded by this class of physiologists that alcohol is not to be ranked among alimentary beverages, and that it is not productive of an increase of heat in the body; on the contrary, it is claimed that the vital heat is even depressed by alcohol. But Dr. Anstie insists that experiments performed by himself and other investigators have proved that a change is effected in the fluid by which it ministers to the vital forces. Undoubtedly a portion is exhaled by the lungs and may escape through the kidneys or bowels; but the amount that passes off unchanged, Dr. Anstie contends, is but a fraction of that ingested when taken in moderate quantities, and he is supported in this opinion by numerous authorities. Beyond a certain amount the powers of the system are not equal to its oxidation, and when taken in excess much of it must be retained in the system or eliminated unaltered; but up to that point the chief portion of it undergoes consumption in the body, and takes part in the maintenance of its functions.

From two series of experiments conducted upon himself Dr. Dupré reaches the following conclusions, as given by Dr. Pavy: "The amount of alcohol eliminated per day does not increase with the continuance of the alcoholic diet; therefore all the alcohol consumed daily must of necessity be disposed of daily; and as it is certainly not eliminated within that time, it must be destroyed in the system. The elimination of alcohol following the ingestion of a dose or doses of alcohol ceases in from nine to twenty-four hours after the last dose has been taken. The amount of alcohol eliminated in both breath and urine is a minute fraction only of the amount of alcohol taken."

Dr. Pavy regards the question as still open to physiological and chemical investigation; but he believes from all the evidence before him it may be inferred that alcohol imbibed in moderate quantities is chiefly destroyed in the system, becoming a source of vital power. Let it be admitted. Most physicians will concur in the belief. It is generally conceded that alcohol is useful as a medicine, as a generator of force in certain conditions of the system; and all practitioners will agree in the propriety of giving "strong drink to him that is ready to perish." All this may be granted in favor of alcohol, and still enough will remain against it to condemn its use by persons in health. It is not necessary to exaggerate the dangers attendant on drink by attempting to prove that alcohol may accumulate in the brain or other organs; the case is bad enough in its admitted enormities.

In practical dietetics the reader will find a rich fund of information as to the food proper for man, the proper amount of food, times of eating, the culinary preparation of food, and the diet for infants; and in reference to therapeutic dietetics judicious instructions are given. In one word, Dr. Pavy has favored his brethren with an admirable book on a most interesting and important subject. When the practice was to reduce the diet of the sick to the minimum compatible with existence physicians might despise dietetics; but since one of the great points in practice has come to be the support of our patients by suitable aliment, the study of food has become one of the most important in medicine.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. Lincoln, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

This is appropriately designated a condensed manual. One hundred and seventy-three octavo pages offer brief enough space to explain the laws of electricity, the different instruments for its medical and surgical employment, and its therapeutic uses. Nevertheless Dr. Lincoln has succeeded admirably in his purpose, and his book will obtain abundant professional approval.

T. P.

The Puerperal Diseases: Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M. D., Clinical Professor of Midwifery and Diseases of Women in the Bellevue Hospital Medical College, etc. New York: D. Appleton & Co. 1874.

This is in every way an admirable work; admirable in the design and execution by the author, and admirable in the manner of presentation by the publishers.

The first of these lectures is upon puerperal convalescence. In speaking of the changes which occur in the uterus after delivery, Dr. Barker says, "The cicatrization of its internal surface is accomplished by the exudation of organizable lymph and the development of a new layer of mucous membrane;" a statement which seems to include two errors—the one that the uterus has been deprived of its mucous membrane, the other that the restoration of this membrane is effected by an inflammatory process. Any one by reading the essay by Dr. Matthews Duncan,* the internal surface of the uterus after delivery, will readily see how great these errors are.

A large portion of the chapter is devoted to the consideration of secondary hemorrhage, and fourteen causes of this accident are mentioned. Really a fifteenth cause might be added: sloughing of some portion of the vagina. One of the severest cases of hemorrhage we have ever known thus occurred a week after delivery.

The second lecture is upon diet of puerperal women. We are glad to see Dr. Barker is no friend to the starvation practices still adhered to by a few venerable nurses, in the

^{*} Researches in Obstetrics, Edinburgh, 1868.

profession and out of it, "who lag superfluous on the stage," but advocates giving "the puerperal woman as good, nutritious food as she has an appetite for and can easily digest and assimilate." A woman has gone through exhausting suffering and toil, and she needs something better to restore her vital forces than crackers and sweetened water, gruel, and tea and toast. She is about engaging in the dairy business, and let her have the best material for milk-making; and it is pretty certain that the *cura famis* never would frighten away puerperal fever or mammary inflammation.

Lacerations of the perinæum are the subject of the third lecture. Dr. Barker belongs to the class of perineal supporters. He believes that the use of the forceps in occipito-posterior deliveries, in some face presentations, and in those cases of vertex presentation where there is excessive flexion of the head, and the sacrum has a less curvature than is normal, may be absolutely necessary to prevent laceration. So too anæsthetics may prevent the accident; incisions are required in certain cases; finally he speaks with approval of Dr. Goodell's method—aiding nature when proper by inserting one or two fingers in the rectum, and hook up and pull forward the sphincter ani toward the pubes.

Passing the lectures on puerperal albuminuria and convulsions, we come to the one on lactation; and in the course of this lecture the topic of milk-fever is considered. In reference to this disorder Dr. B. admits its occasional—we might almost say its exceptional—existence; thus he has a record of a hundred cases, in eight of which milk-fever occurred. A skeptic might ask, How happens it that a common cause in one hundred cases has no effect in ninety-two? Researches by Winchel and Grünewaldt, and more recently by D'Espine, to none of which does Dr. Barker make reference, discredit the existence of this disorder; and D'Espine asserts, after many faithful observations, "There is no milk-fever. The fever of the first septenary is almost invariably

a mild septicæmia, due to absorption from the lochia by slight wounds of the utero-vaginal canal."* The rest of the lecture is devoted to the treatment of disorders of the nipple.

In the lecture upon mastitis and mammary abscess the exciting causes of the former are mentioned as follows: exposure to cold, inflammation of the nipple extending to the breasts, repression of the secretion of the milk at an early period, obstructed lacteal ducts, bruises and other external injuries, and emotional causes, as mental disturbances, fright, etc. Our own conviction is that it is only exceptionally that mammary inflammation and abscess occur from any other causes than inflammation of the nipple, inflammation with ulceration or fissures, and the extension of this inflammation to the gland; this result frequently following the persistent violences done the breast by continued nursing, or efforts with abominable pumps and voracious puppies, or the more abominable mouths of adults, to "get the milk out," under the notion that this mildest-mannered of secretions—this most polite of visitors, which is sure to retire if not wanted will be the cause, if let alone, of a "gathered breast." However this may be, we do not credit "obstructed lacteal ducts" or "repression of the secretion of milk at an early period" with the mischief which Dr. Barker attributes to them. reasoning and observations of Dr. McClintock † seem conclusive as to the innocuousness of milk in this regard; and he very justly observes that retention of the milk should excite inflammation of the mammary gland is a proposition not sustained by analogy. Like Dr. M., we have never seen a case of mammary abscess in a woman who did not nurse at all. In St. John's Hospital, Cincinnati, in the winters of 1864-5, 1865-6, and since then in private practice, we have had several opportunities of observing that distension of the breasts with milk in non-nursing women never terminates in

^{*} Contribution a l'Etude de la Septicémia Puerpérale. Paris, 1873. † Clinical Memoirs on Diseases of Women. Dublin, 1863.

abscess; and still further, in not less than half a dozen cases we have repeated the experiment of Dr. McClintock in the cases of recently-delivered women whose infants were still-born, or who from other cause did not nurse, applied to one breast cerecloth, to the other extract of belladonna, and never have we found any difference as to the time of disappearance of the secretion in the two glands.

Believing in the opinion of Dr. McClintock as to the non-injurious effect of milk in reference to mammary inflammation, we hoped to see that opinion confirmed by the large experience and faithful observation of Dr. Barker; but, alas! he too, as we have seen, ranges himself among the milkmen!

Dr. Barker advocates the local use of belladonna in mastitis, suggesting, in addition to the relief of pain, that it is useful in relaxing muscular fiber, thus allowing a more free exit of milk by dilating the lactiferous tubes. But is it not true, so far as any paralyzing influence of belladonna upon muscular fiber is concerned, that action is exerted especially upon sphincters, and that its chief physiological effect is to produce active vascular constriction? However this may be, the utility of the agent under the circumstances can not be doubted, though we are not prepared to accept all the explanation the author offers.

The lecture on *puerperal mania* is exceedingly interesting and instructive. Dr. Barker states that he has found in this disorder "chloral hydrate of immense value. It apparently does not interfere in the slightest degree with any of the organic functions; it is not followed by any unpleasant secondary effects, as opium and bromide of potassium sometimes are; and in mania I have never yet seen it fail to induce sleep."

Relaxation of the pelvic symphyses is the subject of the eleventh lecture, and phlegmasia dolens of the twelfth. While in reference to the latter affection the author—after twenty-odd pages chiefly devoted to a controversial discussion, only

to conclude that we are as ignorant of its real pathological nature as we are of that of rheumatism and many other diseases—gives us in half a dozen pages an excellent presentation of treatment.

The remaining lectures are upon puerperal thrombosis and embolism, puerperal phlebitis, puerperal metritis, puerperal peritonitis, pelvic peritonitis and pelvic cellulitis, puerperal septicæmia and pyæmia, and puerperal fever.

In considering puerperal fever the author enters very fully into a discussion of the conflicting views of the profession, and maintains that it is an essential disorder and not the consequence of any local lesions, and that it may destroy life without sufficient local disease to explain the symptoms or the cause of death. Dr. Barker refers to the frequent occurrence of erysipelas in the infants of mothers affected with puerperal fever, and strongly, as he should, insists upon the contagiousness of the fever. We wish obstetric teachers had all held this view as to the contagion of puerperal fever in our own student days, more than twenty-two years ago. If these lines should chance to meet the eyes of a skeptic as to this contagious character, we pray he may not be convinced by as sad an experience as our own some twelve years since. For the benefit of such skeptic we will briefly narrate that experience.

A gentleman in the prime of life and ordinarily in vigorous health was suddenly attacked, upon his return home after a protracted and fatiguing visit to several of the military encampments in the West, with some grave abdominal inflammation, proving fatal in four days, the nature of which neither the late Dr. Chas. Fishback—an able physician and a brave, noble man, who was called in consultation with me—nor I could explain. An autopsy was made four days after death; made in the open air, on a chilly March day, just at the entrance to an undertaker's vault. We found extensive suppurative peritonitis. Dr. F., in stitching up the abdominal

incision, had great difficulty in forcing the needle through the half-frozen tissues, and injured his thumb in pressing the head of the needle, though unconscious of such injury at the time. That thumb became inflamed, terribly painful, notwithstanding free incisions at the first onset of suffering, within twelve hours, and proved to be the focus of a pyæmia or septicæmia which was mortal within a week; a pyæmia or septicæmia, with erysipelatous patches on various parts of the body, and diphtheritic exudations upon the fauces, in the larynx, and in the nares.

During the week of Dr. Fishback's illness, and while visiting him several times each day, I attended three cases of labor, the cases being not less than a mile apart, and the three mothers died of puerperal fever, the three infants of erysipelas. Was the poison carried by me to all these puerperal women? And if so, was it acquired at the post mortem or derived from the pyæmic patient? Or finally, did it originate in the first obstetrical patient, in whom the disease already existed when the others were confined? Whatever may be the solution, I now believe that it would be criminal for the practitioner to attend a case of labor while having a case of pyæmia or septicæmia, or for some days after making such a post mortem as that here narrated.

Immediately after these unfortunate cases I relinquished practice and left the city for three weeks; upon my return I attended to obstetrical practice as usual, and from that day to this have never seen a case of puerperal fever except in consultation. I had learned from the lips of an honored teacher, now resting in the grave, the non-contagiousness of puerperal fever; but the lesson was unlearned by this sad experience, and unlearned forever.

Returning from this digression, Dr. Barker's therapeutics of this disorder include three chief agents; viz., veratrum viride, morphia, and quinia. He very justly dismisses mercurials in these words: "Mercurials have been and still are

advised by many authors. By some mercury is supposed to be particularly efficacious in the treatment of phlebitic lesions; but I find no evidence that it is so, either from my own or from the experience of others; neither can I discover any scientific reason why it should be of service in arresting phlebitis, peritonitis, or any other of the local inflammations."

We can not any further continue the notice of this book, which, despite a few slight blemishes, is one of great value. We wish Dr. Barker's lectures were in the hands of every practitioner.

T. P.

Nomenclature of Diseases: Prepared for the use of Medical Officers of the United States Marine Hospital Service by the Supervising Surgeon, John M. Woodworth, M. D.

This is simply a handsomely-printed copy of the Nomenclature of the Royal College of Physicians, London, differing only in the omission of the French, German, and Italian equivalents, the transposition of the English and Latin names, the verification of the index, and the correction of a few clerical and typographical errors.

T. P.

Vaccination: A Report to the Medical Society of Wisconsin. By Dr. E. L. Griffin, of Fon du Lac. Milwaukee: Travser, Williams & Walters. 1874.

Dr. Griffin, in this paper, has re-opened the discussion of several most important points connected with vaccination, and insists with much earnestness upon several conclusions of great moment to society. He is satisfied that the vaccine virus does degenerate, as has often been asserted, and that it has become less protective by its many transmissions through the human system since the time of its discoverer. This he holds is shown, first, by the diminution of the local and

general phenomena now exhibited by the vaccine disease as compared with those presented in its early history, or with those attending the use of cow-pox at the present time; secondly, by the more frequent appearance of variola in vaccinated subjects; thirdly, by the increased success of revaccination and of the cow-pox vaccination over that with humanized lymph in cases of limited susceptibility to the vaccinal disease.

As to the increase of variola in vaccinated persons, the following statistics appear conclusive: Dr. Brown, of Scotland, as early as 1809, found the disease in a modified form in only one half of one per cent of all vaccinated in infancy; in 1830 it was found that thirty-five per cent of vaccinated subjects were susceptible of varioloid, and in 1864 the ratio had risen to eighty-four per cent.

The superior activity of the virus fresh from the cow is proved by the fact that in many cases in which humanized lymph has failed fresh cow-pox has been effectual. Dr. Griffin succeeded in an individual who had been vaccinated fifteen times with the old virus without effect. Donner, in a very large experience with vaccinated subjects, found the cow-pox nearly twice as efficacious as the humanized lymph. Steinbrenner reports one success in thirteen trials with the new against three out of four with the recent lymph. "In twenty cases where he used the old in one arm and the new in the other he got seven good pocks from the new and only two from the old."

The success of vaccination, Dr. Griffin is persuaded, depends largely upon the quality as well as upon the quantity of the virus, and he proves by incontestible evidence the advantage of many insertions. Thus Dr. Lee, of Philadelphia, found the mortality from small-pox after a single insertion to be fifteen per cent, while it was only five per cent with those who had five or more scars to show. Dr. Marson, in five thousand cases of post-vaccinal small-pox, gives the death-

rate as seven per cent in patients with one scar, four per cent in those with two, while in those with four or more it was only about half of one per cent.

Dr. Griffin is strongly in favor of revaccination. He says, in support of the practice, that where universally pursued in Europe "small-pox is all but annihilated, and deaths from it unknown." Dr. Marson gives strong testimony on this point. He says, "I have been twenty-nine years in charge of a small-pox hospital, and have revaccinated all the nurses and attendants on their entrance at the hospital, and not one of them has taken small-pox. They are exposed daily to the infection of the disease, and some have remained here several vears." He adds with truth, "I think I could hardly state any thing more strongly in favor of revaccination. What I have been able to do for the servants and nurses could no doubt be done for the public generally." Dr. G. says, "In the army of Wurtemburg, during five years, there was but one case of varioloid among 14,384 revaccinated soldiers. although small-pox had been imported into different regiments sixteen times." In the same period, of thirty thousand revaccinated persons in civil practice, only one contracted varioloid.

The time of revaccination, it is agreed by the best authorities, is at twelve or fifteen years, up to which period the protection from the first operation is believed to continue; and all persons, Dr. G. contends, attaining that age should be revaccinated, whether small-pox be prevalent or not. He believes, with Dr. Marson and other advocates of revaccination, that by industriously pursuing this course small-pox may be "banished from the domain of human society."

The subject is one which ought never to be lost sight of by the public, and we are pleased with the earnest manner in which the author of this paper presses it upon the professional mind.

Clinic of the Month.

Monobromide of Camphor. — Dr. Bourneville, of Paris. who has been experimenting with this new agent in certain nervous affections, says (Practitioner) that in insomnia he gave it in two cases-to one in four-grain doses at bed-time, and to the other eight grains - with the effect of securing sleep. In three cases of chronic paralysis agitans the monobromide diminished the agitation and slightly increased sleep. An excessively chronic and violent case of chorea was much tranquilized while taking the drug. In hystero-epilepsy, of which Dr. B. had two cases, he gave eight to ten grains of the medicine daily, increasing the quantity by two grains every five days, with notable amendment. In five cases of epilepsy, all of long-standing, the results, without being conclusive, were sufficiently satisfactory to encourage a further trial of the remedy. Dr. B. exhibits the monobromide in pill, or dragée, and hypodermically. For the first he covers two grains of the monobromide with a sufficient quantity of sugar to preserve it from contact with the air and facilitate its administration. For hypodermic use he dissolves fortyfive grains of the monobromide in nine drachms of alcohol and four and a half drachms of glycerine, and of this solution injects from forty to fifty drops.

A New Method of Circumcision.—Mr. Howse, of Guy's Hospital, in a short paper on circumcision, alludes to the drawbacks which sometimes follow the operation as usually performed, and says, "The remedy which I propose, and which I have been in the habit of using in all my circumcision cases,

cut the wedge-shaped piece of mucous membrane at the frænum with a pair of scissors, and then snip the frænum cleanly away from the glans, thus removing it and the wedge-shaped bit of mucous membrane in one piece together. Then unite the skin and mucous membrane in the ordinary way, taking care not to let the latter retract too much on to the dorsum, otherwise there will be an insufficient amount on the ventral aspect. In one or two cases, where I was not sufficiently careful to avoid retraction of the mucous membrane on to the dorsum in putting in the suture, I have had the formation of a slight dorsal swelling; but this has been very slight, and has completely subsided in the course of a week or two."

CARBOLIC ACID IN CONTAGIOUS DISEASES.—M. Cornevin, veterinary surgeon at Montigny-le-Roi, has just published a memoir on the above, the conclusions of which may be summed up thus: I. Carbolic acid exerts no specific action on virus, and nothing points to its employment in virulent diseases, properly so called. 2. In infectious diseases, and especially in charbon, it produces good results. The effects are more certain and more rapid in the horse than in the ox, and the digestion of the latter is often prevented by the acid. 3. In cases where purulent infection is to be apprehended, and even in those where it exists, there seems no special reason for recommending particularly the employment of the acid externally and internally, chloride or oxide of sodium having always appeared much more effective. (Lyon Médicale.)

TREATMENT OF VARICES BY THE LOCAL EMPLOYMENT OF PERCHLORIDE OF IRON. — Dr. Linon, of Verviers, has used perchloride of iron locally with great success during the last three years in the treatment of varices. The strength of the solution is about two and a half drachms to eight ounces of

water. Compresses of flannel are steeped in the water, then wrung out, and applied by means of a flannel bandage, which is only to be moderately tightened. This application is to be kept on twenty-four hours, and on removing it the surgeon is much surprised to find that the venous dilatations have almost entirely disappeared. The applications are to be renewed as above during seven or eight days successively, after which time the bandage is to be kept on, without any further wetting, till it gets loose. It is then to be wetted again with the solution, and applied until the varices have disappeared, which generally takes place after eight days or a fortnight, according to the size of the swelling. These simple means have removed in a few days enormous varices, accompanied by violent pain, with black spots on the surface, and have restored to the patients the use of their limbs. By the unsuccessful application of dry bandages only, Dr. Linon has been able to show that it is not compression but really the local action of the iron which is efficacious. The local action of thermal waters containing magnesia on the skin is similar to that of the perchloride. (London Lancet.)

APPLICATION FOR BURNS.—M. Lebigot recommends the following mixture as having been very successful: cape aloes, four ounces; water, ten ounces; alcohol (90°), three ounces. The ingredients are to be melted together in a china plate over a slow fire, allowed to cool, and then filtered; after which three more ounces of alcohol are to be added. It is then ready for use. A table-spoonful of the mixture mixed with a tea-spoonful of acetate of lead and twenty table-spoonfuls of water constitutes an excellent remedy. It is to be applied morning and evening on the burnt parts. (*Ibid.*)

TREATMENT OF WOUNDS.—The gist of Dr. Abeille's work on the above subject consists in placing a wound in the same conditions as if it were subcutaneous; protection from the

permanent action of air, from the presence of sanious and serous liquids, etc. His method is contained in the three following points: I. Immediate reunion of wounds; 2. Rare dressings every three or four days—one is often sufficient; 3. Applications of cold or tepid water to the dressings. The water is not employed with the object of "refrigerating" the surface, but simply of moderating inflammation, of giving a degree of laxity and softness to the tissues. According to Dr. Abeille, when thus used it accelerates the process of reorganization. (1bid.)

Treatment of Zona by Collodion and Morphia.—Dr. Bourdon, Hôpital la Charité, after having tried a great many local means for treating the above disease and checking the intense pain, has definitively adopted the following plan: without opening the vesicles he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains; the mixture must be put on pretty thickly. The pain ceases from the second day; and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness. (Ibid.)

CINCHO-QUININE.—Dr. J. F. Miller, of Goldsboro, N. C., writes, in the Philadelphia Medical and Surgical Reporter, as follows of this antiperiodic:

"Having used it freely for about twelve months, and fairly tested its virtues both as a tonic and antiperiodic, I recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect even in children; i. e., an efflorescence of the skin after giving it for several days in full doses; but this effect is comparatively rare and really of little importance. I do not regard the cincho altogether equal to the sulphate of quinine as an antiperiodic, of the same quantity by weight, but probably about

one eighth weaker; but the sulphate costs a little over one third more than the cincho-quinine, which as a pecuniary investment leaves a balance in favor of the latter article. The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard it as particularly adapted to this class of patients; for by giving it as an elixir it is readily taken, a most important consideration.

"The following are a few of the cases of children treated with the cincho-quinine.

"Ella, aged eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from 8 to 10 A. M.

	Cincho-quinine,.					gr.vij;	
	Aro. sulph. acid,					gtt.v;	
	Syr. ginger,						
	Rose-water.					aa 3ss.	

Give a tea-spoonful at 8 and 11 P. M. and at 2 and 5 A. M. No perceptible chill, but a slight fever about 1 P. M. Repeated the dose at 5, 7, 9, and 11 A. M. next day. Patient recovered without further difficulty.

"Tommy, aged five years, had two chills, tertian form, the last being very severe and fever lasting unusually long. Time of chill, 7 A. M.

R.	Calomel, .			.)	55 or ii	M.
	Leptandrin,			. }	āā gr. ij.	

Take at bed-time. Medicine acted well early next morning, and at 8 and 11 P. M. and 2 and 5 A. M. two tea-spoonfuls of the following mixture were given:

	Cincho-quinine			gr. xij;		
	Aro. sulph. acid,				gtt. vij;	
	Syr. ginger, . Rose-water, .				zz Z:	
	Rose-water				aa 3).	

No return of chill or fever; patient rapidly recovered. Took remainder of prescription, in tea-spoonful doses, three times a day.

"My own child, Charlie, aged seven and a half years, took the same prescription given to case No. 2, with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the above elixir."

TREATMENT OF DYSENTERY.—Dr. Bodo Wenzel has often had occasion to make use in dysentery of enemata of iced water, or rather water containing finely-powdered ice. Under the influence of this treatment he has noted the rapid disappearance of the bloody stools and tenesmus, and amendment of the fever. This treatment is only successful, however, in recent and acute cases. It then constitutes a most efficacious remedy. (Berl. Klin. Wochenschrift.)

TREATMENT OF PNEUMONIA AND BRONCHITIS BY CARBOLIC ACID.—Mr. Henry Greenway writes (British Medical Journal) that he has been treating uncomplicated pneumonia and bronchitis very successfully with carbolic acid. The following is his formula for an adult:

R. Glycerini acidi carbolici, . . 3 ij;
Extracti opii liquidi, m xxx;
Aquæ camphoræ, 3 vj.

M. S. A table-spoonful every four or six hours in water.

Motes and Queries.

DR. PARVIN'S POLYPTOME, DRS. AVELING'S AND LEITER'S

Transfusion Instruments.—At the recent meeting of the American Medical Association Dr. Parvin presented the section on Obstetrics and the Diseases of Women and Children some instruments for the removal of intra-uterine polypi, and the transfusion apparatus of Leiter and that of Aveling. The section passed a resolution requesting him to furnish representations with descriptions of these instruments for the volume of Transactions, and we publish the subjoined from advanced sheets:

"The instrument here represented—the drawing is about half size—is one of three that I have made for the removal of intra-uterine polypi. It is both a polyptome and forceps, and is intended to obviate those difficulties which often occur in the removal of these growths, difficulties in reaching and in dividing the pedicle, and in the extraction of the tumor. It consists of two curved, fenestrated blades, the one *lying within the other*, having straight handles, one of the handles a cylinder



Dr. Parvin's Polyntome

through which the other passes, and in which it may be made to revolve by a winch attached to it externally. The outside blade is rounded at the end, and is a little longer than the other, which, instead of being rounded, is slightly convex, and has a cutting edge.*

"In operating pass the blades lying together as represented in the lower figure up one side of the polypus and over its superior portion until the pedicle is reached; then by means of the winch cause the inner blade to make a complete rotation, and in this movement the pedicle will be divided; then a half rotation, bringing the blades in the relation represented in the upper figure, will firmly embrace the tumor, and its extraction can be readily effected.

"Since the meeting of the association I have furnished Otto & Reynders, of New York, with a model of my instrument. They have made two or three modifications in it which I heartily approve, as these add decidedly to its neatness and somewhat to its efficiency.

"Of the other two instruments one is similar in form to that here represented, save that the blades are about the same length, each is rounded and neither has a cutting edge, and the handle of the internal blade is a tube as well as that of the external. Through this tube a strong flexible wire is passed down to the blades, and through a perforation in each (like threading two needles with one thread, thus making a loop), and then the wire is returned through the tube, and the two ends are fastened to a windlass just external to the tube. Now, as in the operation previously described, after introducing the instrument rotate the internal blade (in this movement the wire is made to encircle the pedicle of the polypus), then by gradually turning the windlass the wire cuts its way through; this accomplished, loosen the ends of

^{*} For this arrangement of the blades I am indebted to my friend Dr. Hollingsworth, of Indianapolis, a talented and ingenious dentist, who, with the facilities of his workshop, meager for such a purpose, made my first instrument, differing, however, very materially from the one I here describe.

the wire, and then a semi-rotation of the inner blades enables the ready withdrawal of the tumor.

"The other instrument is simply a pair of long, straight forceps, somewhat like miniature obstetrical forceps in form, with the internal extremities of the blades not rounded, but having a rather broad and thick margin, coarsely serrated, making a sort of linear *écraseur*. In operating introduce each

blade separately; then in locking them the pedicle will be divided, especially if in this process a sort of up-and-down motion is given to one or the other blade.

"The subject of immediate transfusion was brought prominently before the London Obstetrical Society, in 1864,* by Dr. Aveling, when he exhibited a very simple apparatus for the operation; the apparatus consisting of two small silver tubes to enter the vessels. and of an india-rubber pipe, by which they are united, and which has in its center an elastic receptacle holding about two drachms. In 1872 † Dr. A. presented to the society his instrument, modified



Dr. Aveling's Transfusion Apparatus

by the addition of a tap on each tube. This is the form

^{*} See vol. vi of its Transactions.

[†] Obstetrical Transactions, vol. xiv.

presented the section and now represented above. The tube for insertion into the vein of the blood-donor is rounded and the other beveled; the former is inserted downward, the latter upward. The vein may be opened, as suggested by Dr. A.,* by seizing it with a pair of forceps and incising it so as to form a V-shaped flap. The india-rubber portions of the apparatus should be completely filled with warm water, partly for cleanliness and partly to insure the absence of air. The tubes also containing water are inserted in the vein, each tube being held by an assistant; then the connection is made, and the operator compresses the bulb holding the rubber tube on the side toward the donor; then let the bulb expand while holding firmly the rubber tube between it and the recipient; immediately the bulb fills with blood, and now repeating the previous manipulation it is transferred to the recipient.†

"Leiter's transfusion apparatus is a recent and very ingenious, though not at all complicated, instrument with which transfusion, either immediate or mediate, may be performed. It consists of a cylinder (c) with an oblique opening (b), into which the lancet (e) is inserted; a pump (f), a tube and glass receiver (g), and a transfusion canula (h). There is also a foot-piece (d), which replaces the cylinder (c) in mediate transfusion.

"In immediate transfusion the cylinder is strapped on the arm of the blood-donor, with the opening (b) superiorly, in order that the lancet shall be directly obliquely downward, and so strapped that the lancet will be applied directly to the vein selected for opening. Fill the cylinder with water, then screw on the pump, which may also be filled with water to insure the absence of air when the transfusion is actually commenced; press the lancet down upon the vein, and then

†A very complete account of the method of operating will be found in the New York Medical Record, April 1, 1874.

^{*}Obstetrical Transactions, vol. xv. It is somewhat remarkable that in Dr. Leishman's excellent work on Obstetrics Dr. Aveling's instrument of 1864, not of 1872, is represented. (See System of Midwifery, Am. ed., p. 405.)

pump until all the water passes off, and upon introducing the canula into the recipient's vein the blood is steadily thrown into it.

"Should mediate transfusion—with defibrinated blood, for example—be preferred, the cylinder, strap, and lancet are



Leiter's Transfusion Apparatus.

removed, and the foot-piece (d) is attached to the pump; this foot-piece is then placed in the vessel containing the prepared blood, the pump used as before until the blood unmixed with water or air escapes from the canula, when

the latter is inserted into the recipient's vein and the requisite amount of blood transfused."

THE WEST VIRGINIA MEDICAL STUDENT is the title of a publication which is announced for January, 1875, to be edited by Dr. James E. Reeves, at Wheeling, W. Va. It is to be a monthly record of the progress of medicine, surgery, and the allied sciences, and will be entirely devoted to subjects of practical importance to the general practitioner. It will contain thirty-two pages of matter, at a subscription-price of two dollars a year. We bespeak for the coming "Medical Student" the same cordial greetings which its many namesakes are receiving just at this time in all the great medical centers.

REGISTRATION BLANKS.—The following well-grounded complaint concerning these comes from a distinguished physician of Catlettsburg, Ky.:

Editors American Practitioner:

I would like to call the attention of the profession in Kentucky to the blanks recently distributed for the purpose of carrying out the design of the registration law passed by our legislature last session. It is much to be regretted, after the assiduous labors of many of our medical brethren in effecting the passage of such an important and much-needed law, that its grand designs should be rendered nugatory by the form of blanks furnished. To explain, I recently received two sheets for each as records of births and deaths so arranged that the former will contain but six separate recorded cases on each sheet, and this is all to make my year's report upon, with no instructions save to "fill and return to the county clerk at the end of the year." These blanks do not designate when the year begins and when it closes; no place for the signature of the physician, etc., reporting; for date, post-office, etc.; do not contain enough blanks for a year's business. Besides this, suitable blanks ought to have been distributed quite early in the year. It will be very readily imagined how many and great will be the inaccuracies in filling up these present forms. Did it not occur to the person getting up these blanks that it would have been much more convenient, and much greater accuracy would have obtained, if the sheets had been sufficiently large, with parallel columns from top to bottom; giving a space after the first column for parents' names, for each class of information needed, with proper upper marginal headings to specify year, etc., for making report? Thus one sheet would have recorded more cases than four or five of the present.

My desire for the success of the present law, and that it should not be brought into disrepute by the causes above stated, so as to meet with the fate of a former law of this sort, is the only apology I offer for this letter, which I hope will at least direct attention to this vitally important matter.

Very truly,

S. V. FIROR, M. D.

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*Any of these works may be procured on application to Messrs. John P. Morton and Company, Louisville, Ky.